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ABSTRACT

The paper describes the Special Education Data Management System (SEDMS), an approach which provides flexibility in meeting changing data requirements and which can generate reports in a reliable manner. Further, SEDMS is operable by a non-programer within a multi-user environment. SEDMS checks the validity of entries to ensure against inaccurate data entry. The system consists of two data bases called "students" and "staff." Actual data fields are listed in two appendixes. Cost of creating the system is noted and its cost effective nature indicated. (CL)

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SLICING IT THICK OR THIN: A DATA BASED MANAGEMENT SYSTEM

Presented at CEC's 64th Annual Convention
New Orleans, Louisiana
by
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Most Special Education Administrators have had the experience of submitting a report which requests that data be reported for students ages 3-5, 6-10, and 11-12, only to be asked at a later date for the same data but for ages 3-6, 7-11 and 12-21. The purpose of this session will be to present a data based management system which can: (1) provide flexibility to meet changing data requirements; (2) be created and maintained by a "non-expert"; (3) operate in a multiuser environment; and (4) generate reports in a fool proof manner.

The Special Education Data Management System (SEDMS) has been utilized and validated during the past two years to generate reports to satisfy State and Federal reporting requirements and to provide data for LEA planning and evaluation needs. Experience has shown the program to have: (1) a high degree of flexibility in adapting to meet changes in data collection and reporting needs; (2) program elements which can be created and maintained by a non-programmer but access to a support group greatly facilitates development and maintenance; (3) a multiuser environment that is cost effective; and (4) menu driven reports that are mistake resistent.

SEDMS was built utilizing a commercial electronic filing system, an applications generator (filePro 16), and is operated on Tandy 6000 (Appendix A lists systems that are compatible with filePro 16). The system consists of two data bases called "students" and "staff". The data bases contain the types of information the title suggests. Appendices B and C contain the actual data fields.

SEDMS's menus allow operation of the program by persons with minimal computer operating skills. Data entry screens can be accessed by user menus designed specifically for the operator. Figure 1 shows an example of a menu that would be displayed after an operator logs on to the system. To update the data base that contains student data, (s)he presses <6> which presents the operator with a series of menus which guide her/him to the appropriate input screen (Figure 2).

Experience has shown that inaccurate data entry has been a major barrier to maintaining a data base. To reduce this problem, SEDMS checks the validity of entries to insure that entries for teachers, exceptionality and school are valid codes. The student's current age and federal age group are automatically calculated and the program looks up the correct zip code for the student's address entry. Additionally, the computer will not permit certain critical fields to be left blank. Help screens are available for certain fields. For example, a listing of all valid teacher entries can be accessed by the operator by entering <control x> when the cursor is in the field for "Teacher: " or a display of all valid school codes can

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Figure 1

Trish's Main Menu

1 - Show Directories and files
2 - Scripsit County
3 - State
4 - Misc.
5 - Recruitment
6 - Inquire, Update, Add - Students
7 - Inquire, Update, Add - Staff
8 - Inquire, Update, Add - (r)eferrals
9 - Profile Menu - Students
A - Profile Menu - Staff
B - Profile Menu - (r)efferral
C - Reports Menu

Figure 2

*** STUDENTS ***

. First Name: Last Name:
. Birthdate:
. Grade: School:
. Exceptionality: Age Group:
. Annual Review:
. Triennial Review: Age in Dec.
. Related Services: LAST UPDATE:
. Current Age By:
. Teacher:
.
. Remarks:

. Parents:
. Street:
. City: State: Zip:

. Child Count: Flag (F to flag): Control:

be called by entering <control x> when the cursor is in the field "School: ". Although not totally bullet proof, the data entry checks greatly increase the integrity of the data and thereby its usefulness.

SEDMS utilizes a second data base identified as "staff". "Staff" contains information concerning professional personnel such as name, position, certification, school(s), and mailing address (see Appendix C for actual data fields). The data base "students" interacts with "staff". By running a report called "Post child count to staff", the total duplicated and unduplicated child count of each teacher can be posted to "staff". During data entry into "staff", the names of teachers maintained by "staff" are used to validate that entry for teacher's is an appropriate name.

To generate a report, the operator selects <C> Reports menu which displays a menu of report selections (see Figure 3). Additionally, reports can be generated by selecting and sorting on any combination of data fields. To do so requires an understanding of Boolean algebra, that is, be able to apply logical operators (AND, OR, NOT, GREATER THAN, and LESS THAN) to the elements of the data base.

One of the program's greatest strengths is its flexibility. New reports can be easily generated or new fields of data can be added to the data base after it has been created. Currently, SEDMS does not have a data field for the sex of the student. In the event that the decision to maintain a record of each student's sex is made, the program manager can add the new field to the data base, modify or add to the input screen(s), and modify or add reports. A situation such as described in the introduction can be readily accommodated by changing the process which calculates the data field labeled age group.

Figure 3

Profile Reports

1. **Annual Review (ar for sel. table)**
2. **Triennial Eval (tri for sel table)**
3. **Referrals sorted by school**
4. **Classroll sort by sch / teacher**
5. **CLassroll summary by school**
6. **Second Month Report**
7. **December Report (Federal)**
8. **Post Child count to staff**

Systems similar to SEDMS can be created by persons with no programming language skills and with a minimal investment in learning time. A working knowledge of filePro 16 can be gained by working through a program tutorial which takes approximately two days. A more sophisticated knowledge requires an investment of

approximately another two days but will enable the program manager to build user, edits, lookups from other programs, and other options that will enhance the program's usefulness.

The cost of creating SEDMS includes: Hardware - 6000 Tandy Computer ~~$4000~~ 3260.00, Software - filePro 16 $995.00 and filePro 16 Plus $995.00. Although the cost of the software and training time are substantial the dividends are even more substantial. SEDMS provides flexibility needed for a changing environment and the time spent in learning the system grants a very high degree of freedom from the high priests of computer technology.

The ability of SEDMS to operate in a multiuser environment solves the problems of more than one person needing to interact with the program. Typically, data is entered by a clerical person and utilized by program managers. With single user computers access is frequently a problem. Additionally, multiuser systems are cost effective in situations where separate computers are needed or where there is redundancy in data bases.

Appendix A

Computers on which filePro 16 will operate

Altos	4 Phase (Motorola)
AT&T 3B2	IBM PC/AT
AT&T 7300	NCR Tower
DEC MicroVax	Plexus
Fortune	Sperry

Appendix B

Number	----------Field Heading----------	Len	--Type--
key segment:			
1	LAST NAME	11	UPLOW
2	FIRST NAME	13	UPLOW
3	TEACHER	17	UPLOW
4	CATEGORY	3	CAT
5	ANNUAL REVIEW DATE	8	MDY/
6	TRIENNIAL REVIEW DATE	8	MDY/
7	D.O.B.	8	MDY/
8	CITY	15	UPLOW
9	STATE	2	ALLUP
10	AGE GROUP	7	*
11	SCHOOL	2	SCH
12	CHILD COUNT	1	.0
13	PARENT(S)	33	*
14	ADDRESS	20	*
15	ZIP CODE	5	*
16	RELATED SERVICES	15	ALLUP
17	AGE	3	.0
18	AGE.DECEMBER	2	.0
19	REMARKS	56	*
20	GRADE EQUAL	2	.0
21	FLAG	1	FLAG
22	CONTROL	1	*
23	INCOMPLETE FILE 1	1	*
24	INCOMPLETE FILE 2	1	*
25	INCOMPLETE FILE 3	1	*

Appendix C

Number	Field Heading	Len	Type
key segment:			
1	lname	16	
2	fname	12	UPLOW
3	position	9	ALLUP
4	certification	25	ALLUP
5	school_1	2	ALLUP
6	school_2	2	ALLUP
7	school_3	2	ALLUP
8	phone	8	PHONE
9	address	25	
10	city	15	UPLOW
11	zip	5	
12	remarks	35	
13	M/am	2	ALLUP
14	M/pm	2	ALLUP
15	Tu/am	2	ALLUP
16	Tu/pm	2	ALLUP
17	W/am	2	ALLUP
18	W/pm	2	ALLUP
19	Th/am	2	ALLUP
20	TH/pm	2	ALLUP
21	F/am	2	ALLUP
22	F/pm	2	ALLUP
23	Sal-Proj. (Current)	4	
24	Sal-Acc. (Current)	7	
25	Salary (Current)	9	$
26	Social Security	11	SSNUM
27	Program Area	5	ALLUP
28	F.T.E.	7	
29	Delivery System	2	ALLUP
30	Aides	1	.0
31	Undup. Count	3	.0
32	Dup. Count	3	.0
33	Mixed LD Undup.	3	.0
34	Mixed LD Total	3	.0
35	Mixed EMI Undup.	3	.0
36	Mixed EMI Total	3	.0
37	Flag	1	
38	Teacher	17	UPLOW
39	Degree	10	
40	Personnel Category	3	ALLUP
41	Mixed BD Undup.	3	.0
42	Mixed BD Total	3	.0
43	Sal-Proj. (Next Yr.)	4	
44	Sal-Acc. (Next Yr.)	7	